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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/537,920	ARIDOME ET AL.	
	Examiner	Art Unit	
	MARC DAZENSKI	4113	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 June 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 June 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6-08-2005, 4-19-2006, & 2-05-2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 8, and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

> Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.
>
> When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and Warmerdam, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).
>
> In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claims 9-10 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claims 9-10 define "a program" embodying functional descriptive material. However, the claim does not define a computer-readable medium or computer-readable memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV). The scope of the presently claimed invention encompasses products that are not necessarily computer readable, and thus NOT able to impart any functionality of the recited program. The examiner suggests amending the claim(s) to embody the program on "computer-readable medium" or equivalent; assuming the specification does NOT define the computer readable medium as a "signal", "carrier wave", or "transmission medium" which are deemed non-statutory (refer to "note" below). Any amendment to the claim should be commensurate with its corresponding disclosure.

Note:

A "signal" (or equivalent) embodying functional descriptive material is neither a process nor a product (i.e., a tangible "thing") and therefore does not fall within one of the four statutory classes of § 101. Rather, "signal" is a form of energy, in the absence of any physical structure or tangible material.

Should the full scope of the claim as properly read in light of the disclosure encompass non-statutory subject matter such as a "signal", the claim as a whole would

be non-statutory. In the case where the specification defines the computer readable medium or memory as statutory tangible products such as a hard drive, ROM, RAM, etc, as well as a non-statutory entity such as a "signal", "carrier wave", or "transmission medium", the examiner suggests amending the claim to *include* the disclosed tangible computer readable media, while at the same time *excluding* the intangible media such as signals, carrier waves, etc.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3-4, and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino (US Patent 5,633,976), hereinafter referred to as Ogino, in view of Brandon (US Patent 5,951,646), hereinafter referred to as Brandon, further in view of Okada et al (US Patent 5,754,241), hereinafter referred to as Okada.

Regarding **claim 1**, Ogino discloses an image recording apparatus and electronic still camera. Ogino further discloses recording process circuit (20), which reads on the claimed "a record control apparatus," as disclosed at column 3, line 6; comprising:

a buffer memory (22) for storing the output of the recording process circuit (20), which reads on the claimed, "a buffer for storing moving image data belonging to a chapter," as disclosed at column 3, lines 9-10;

system control circuit (30) that checks through memory control circuit (24) whether the remaining capacity of the buffer memory (22) is at least equal to a predetermined threshold value V1, which reads on the claimed, "storage size detecting means for detecting that the moving image data stored in the buffer increases in size beyond a first size and then reaches a second size," as disclosed at column 4, lines 45-48. Ogino, however, fails to disclose final data detecting means for detecting that the final moving image data belonging to the chapter is stored in the buffer. However, the examiner maintains that it was well known in the art to provide final data detecting means for detecting that the final moving image data belonging to the chapter is stored in the buffer, as taught by Brandon.

In a similar field of endeavor, Brandon discloses a system and method for scheduling and processing image and sound data. Further, Brandon discloses an end of file ("EOF") indication used by a player logic element (310) to investigate input buffers to determine if there is a predetermined amount of information in the buffer, which reads on the claimed, "final data detecting means for detecting that the final moving image data belonging to the chapter is stored in the buffer," as disclosed at column 5, lines31-45. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Ogino to include the EOF indication, as taught by Brandon, for the purpose of identifying separate recorded video files.

The combination of Ogino and Brandon, however, fails to disclose moving image object output means for retrieving a portion of the moving image data, stored in the buffer, corresponding to the first size from the head of the moving image data, and

outputting the portion of the moving image data as a moving image object if it is detected that the moving image data stored in the buffer reaches the second size, and retrieving the whole moving image data stored in the buffer and outputting the retrieved moving image data as a moving image object if it is detected that the final moving image data belonging to the chapter is stored in the buffer. However, the examiner maintains that it was well known in the art to provide moving image object output means for retrieving a portion of the moving image data, stored in the buffer, corresponding to the first size from the head of the moving image data, and outputting the portion of the moving image data as a moving image object if it is detected that the moving image data stored in the buffer reaches the second size, and retrieving the whole moving image data stored in the buffer and outputting the retrieved moving image data as a moving image object if it is detected that the final moving image data belonging to the chapter is stored in the buffer, as taught by Okada.

In a similar field of endeavor, Okada discloses a video decoder capable of controlling encoded video data. Further, Okada discloses when an occupying amount Bm of the bit buffer (2) exceeds the threshold value Bthn, the determining circuit (5) determines that the bit buffer (20) may overflow, and in accordance with this decision, the control core circuit (7) controls the bit buffer (2) in such a manner that a video stream for the proper number of pictures is read out to set the occupying amount of Bm of the bit buffer (2) smaller than the threshold value Bthn, which reads on the claimed, “moving image object output means for retrieving a portion of the moving image data, stored in the buffer, corresponding to the first size from the head of the moving image

data, and outputting the portion of the moving image data as a moving image object if it is detected that the moving image data stored in the buffer reaches the second size, and retrieving the whole moving image data stored in the buffer and outputting the retrieved moving image data as a moving image object if it is detected that the final moving image data belonging to the chapter is stored in the buffer," as disclosed at column 9, lines 9-16.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Ogino and Brandon to specifically include when an occupying amount Bm of the bit buffer (2) exceeds the threshold value Bthn, the determining circuit (5) determines that the bit buffer (20) may overflow, and in accordance with this decision, the control core circuit (7) controls the bit buffer (2) in such a manner that a video stream for the proper number of pictures is read out to set the occupying amount of Bm of the bit buffer (2) smaller than the threshold value Bthn, as taught by Okada, for the purpose of avoiding buffer overflow and underflow errors.

Regarding **claim 3**, the combination discloses everything claimed as applied above (see claim 1). In addition, Ogino discloses threshold values V1 and V2 that are stored in the memory (31) either in a fixed manner or variable through the function of the operation unit (38), which reads on the claimed, " wherein the storage size detecting means further comprises i0 threshold holding means for holding the first size and the second size and supplying the threshold detecting means with the first size and the second size," as disclosed at column 5, lines 40-42.

Regarding **claim 4**, the combination discloses everything claimed as applied above (see claim 1). In addition, Ogino discloses the operation unit (38) discriminating whether the remaining capacity of the buffer memory (22) is equal to a second threshold value V2, which is smaller than the first threshold value, which reads on the claimed, “threshold setting means for setting the first size of the moving image object as a standard size of the moving image object, and the second size of the moving image object as a lower limit value of the moving image object for seamless connection in the threshold holding means," as disclosed at column 4, lines 58-64.

Regarding **claim 7,** Ogino discloses an image recording apparatus and electronic still camera. Ogino further discloses a recording control process carried out by a recording process circuit (20), which reads on the claimed, “a record control method of a record control apparatus having a buffer storing moving image data belonging to a chapter,” as disclosed at column 3, lines 6-7; the process comprising:

storing a compressed signal output from a recording process circuit (20) into one of eight banks of buffer memory (22), which reads on the claimed, "a step of encoding the moving image data and outputting successively the encoded moving image data to the buffer,” as disclosed at column 4, lines 8-14;

system control circuit (30) checking through memory control circuit (24) whether the remaining capacity of the buffer memory (22) is at least equal to a predetermined threshold value V1, which reads on the claimed, "a step of detecting that the moving image data stored in the buffer increases in size beyond a first size and then reaches a second size,” as disclosed at column 4, lines 45-48. Ogino, however, fails to disclose a

step of retrieving a portion of the moving image data, stored in the buffer, corresponding to the first size from the head of the moving image data, and outputting the retrieved portion of the moving image data as a moving image object if it is detected that the size of the moving image data stored in the buffer reaches the second size, a step of retrieving the whole moving image data stored in the buffer and outputting the retrieved moving image data as a moving image object if it is detected that the final moving image data belonging to the chapter is stored in the buffer. However, the examiner maintains that it was well known in the art to provide a step of retrieving a portion of the moving image data, stored in the buffer, corresponding to the first size from the head of the moving image data, and outputting the retrieved portion of the moving image data as a moving image object if it is detected that the size of the moving image data stored in the buffer reaches the second size, a step of retrieving the whole moving image data stored in the buffer and outputting the retrieved moving image data as a moving image object if it is detected that the final moving image data belonging to the chapter is stored in the buffer, as taught by Okada.

In a similar field of endeavor, Okada discloses a video decoder capable of controlling encoded video data. Further, Okada discloses when an occupying amount Bm of the bit buffer (2) exceeds the threshold value Bthn, the determining circuit (5) determines that the bit buffer (20) may overflow, and in accordance with this decision, the control core circuit (7) controls the bit buffer (2) in such a manner that a video stream for the proper number of pictures is read out to set the occupying amount of Bm of the bit buffer (2) smaller than the threshold value Bthn, which reads on the claimed,

"a step of retrieving a portion of the moving image data, stored in the buffer, corresponding to the first size from the head of the moving image data, and outputting the retrieved portion of the moving image data as a moving image object if it is detected that the size of the moving image data stored in the buffer reaches the second size, a step of retrieving the whole moving image data stored in the buffer and outputting the retrieved moving image data as a moving image object if it is detected that the final moving image data belonging to the chapter is stored in the buffer," as disclosed at column 9, lines 9-16.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the recording control process of Ogino to specifically include when an occupying amount Bm of the bit buffer (2) exceeds the threshold value Bthn, the determining circuit (5) determines that the bit buffer (20) may overflow, and in accordance with this decision, the control core circuit (7) controls the bit buffer (2) in such a manner that a video stream for the proper number of pictures is read out to set the occupying amount of Bm of the bit buffer (2) smaller than the threshold value Bthn, as taught by Okada, for the purpose of avoiding buffer overflow and underflow errors. The combination of Ogino and Okada, however, fails to a step of detecting that the final moving image data belonging to the chapter is stored in the buffer. However, the examiner maintains that it was well known in the art to provide a step of detecting that the final moving image data belonging to the chapter is stored in the buffer, as taught by Brandon.

In a similar field of endeavor, Brandon discloses a system and method for scheduling and processing image and sound data. Further, Brandon discloses an end of file ("EOF") indication used by a player logic element (310) to investigate input buffers to determine if there is a predetermined amount of information in the buffer, which reads on the claimed, "a step of detecting that the final moving image data belonging to the chapter is stored in the buffer," as disclosed at column 5, lines 31-45. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Ogino and Okada to include the EOF indication, as taught by Brandon, for the purpose of identifying separate recorded video files.

Regarding **claim 8,** Ogino discloses an image recording apparatus and electronic still camera. Ogino further discloses a recording control process carried out by a recording process circuit (20), which reads on the claimed, "a record control method of a record control apparatus having a buffer storing moving image data belonging to a chapter," as disclosed at column 3, lines 6-7; the process comprising:

the operation unit (38) discriminating whether the remaining capacity of the buffer memory (22) is equal to a second threshold value V2, which is smaller than the first threshold value, which reads on the claimed, "a step of setting a first size of the moving image object as a standard size of a moving image object, and a second size of a moving image object as a lower limit value of the moving image object for seamless connection," as disclosed at column 4, lines 58-64;

storing a compressed signal output from a recording process circuit (20) into one of eight banks of buffer memory (22), which reads on the claimed, "a step of encoding

the moving image data and outputting successively the encoded moving image data to the buffer," as disclosed at column 4, lines 8-14;

system control circuit (30) checking through memory control circuit (24) whether the remaining capacity of the buffer memory (22) is at least equal to a predetermined threshold value V1, which reads on the claimed, "a step of detecting that the moving image data stored in the buffer increases in size beyond a first size and then reaches a second size," as disclosed at column 4, lines 45-48. Ogino, however, fails to disclose a step of retrieving a portion of the moving image data, stored in the buffer, corresponding to the first size from the head of the moving image data, and outputting the retrieved portion of the moving image data as a moving image object if it is detected that the size of the moving image data stored in the buffer reaches the second size, a step of retrieving the whole moving image data stored in the buffer and outputting the retrieved moving image data as a moving image object if it is detected that the final moving image data belonging to the chapter is stored in the buffer. However, the examiner maintains that it was well known in the art to provide a step of retrieving a portion of the moving image data, stored in the buffer, corresponding to the first size from the head of the moving image data, and outputting the retrieved portion of the moving image data as a moving image object if it is detected that the size of the moving image data stored in the buffer reaches the second size, a step of retrieving the whole moving image data stored in the buffer and outputting the retrieved moving image data as a moving image object if it is detected that the final moving image data belonging to the chapter is stored in the buffer, as taught by Okada.

In a similar field of endeavor, Okada discloses a video decoder capable of controlling encoded video data. Further, Okada discloses when an occupying amount Bm of the bit buffer (2) exceeds the threshold value Bthn, the determining circuit (5) determines that the bit buffer (20) may overflow, and in accordance with this decision, the control core circuit (7) controls the bit buffer (2) in such a manner that a video stream for the proper number of pictures is read out to set the occupying amount of Bm of the bit buffer (2) smaller than the threshold value Bthn, which reads on the claimed, "a step of retrieving a portion of the moving image data, stored in the buffer, corresponding to the first size from the head of the moving image data, and outputting the retrieved portion of the moving image data as a moving image object if it is detected that the size of the moving image data stored in the buffer reaches the second size, a step of retrieving the whole moving image data stored in the buffer and outputting the retrieved moving image data as a moving image object if it is detected that the final moving image data belonging to the chapter is stored in the buffer," as disclosed at column 9, lines 9-16.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the recording control process of Ogino to specifically include when an occupying amount Bm of the bit buffer (2) exceeds the threshold value Bthn, the determining circuit (5) determines that the bit buffer (20) may overflow, and in accordance with this decision, the control core circuit (7) controls the bit buffer (2) in such a manner that a video stream for the proper number of pictures is read out to set the occupying amount of Bm of the bit buffer (2) smaller than the threshold

value Bthn, as taught by Okada, for the purpose of avoiding buffer overflow and underflow errors. The combination of Ogino and Okada, however, fails to a step of detecting that the final moving image data belonging to the chapter is stored in the buffer. However, the examiner maintains that it was well known in the art to provide a step of detecting that the final moving image data belonging to the chapter is stored in the buffer, as taught by Brandon.

In a similar field of endeavor, Brandon discloses a system and method for scheduling and processing image and sound data. Further, Brandon discloses an end of file ("EOF") indication used by a player logic element (310) to investigate input buffers to determine if there is a predetermined amount of information in the buffer, which reads on the claimed, "a step of detecting that the final moving image data belonging to the chapter is stored in the buffer," as disclosed at column 5, lines 31-45. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Ogino and Okada to include the EOF indication, as taught by Brandon, for the purpose of identifying separate recorded video files.

Regarding **claim 9,** the limitations of the claim are rejected in view of the explanation set forth in claim 7 above.

Regarding **claim 10,** the limitations of the claim are rejected in view of the explanation set forth in claim 8 above.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino (US Patent 5,633,976), hereinafter referred to as Ogino, in view of Brandon (US Patent 5,951,646), hereinafter referred to as Brandon, further in view of Okada et al (US Patent

5,754,241), hereinafter referred to as Okada, further in view of Shikunami (US Patent 6,718,121), hereinafter referred to as Shikunami.

Regarding **claim 2**, the combination discloses everything claimed as applied above (see claim 1). In addition, Ogino discloses the operation unit (38) discriminating whether the remaining capacity of the buffer memory (22) is equal to a second threshold value V2, which is smaller than the first threshold value, which reads on the claimed, “threshold detecting means for detecting that the time measurement means detects the second size after the size measurement means detects the first size," as disclosed at column 4, lines 58-64. The combination fails to disclose, however, size measurement means for measuring the size of the moving image data stored in the buffer, time measurement means for measuring time by converting, into time, the size of the moving image data stored in the buffer. However, the examiner maintains that it was well known in the art to provide size measurement means for measuring the size of the moving image data stored in the buffer, time measurement means for measuring time by converting, into time, the size of the moving image data stored in the buffer, as taught by Shikunami.

In a similar field of endeavor, Shikunami discloses an information signal processing apparatus using a variable compression rate in accordance with contents of information signals. Further, Shikunami discloses the control portion (6) calculates the recording picture quality and the recording time based on the recordable remaining capacity of the optical disk (1), which reads on the claimed, "size measurement means for measuring the size of the moving image data stored in the buffer, time measurement

means for measuring time by converting, into time, the size of the moving image data stored in the buffer," as disclosed at column 6, line 67 through column 7, line 4.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Ogino, Brandon, and Okada to specifically include the control portion calculates the recording picture quality and the recording time based on the recordable remaining capacity of the optical disk, as taught by Shikunami, for the purpose of utilizing numbers that require less memory usage thereby reducing the calculation requirements of the control portion.

Claim 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogino (US Patent 5,633,976), hereinafter referred to as Ogino, in view of Brandon (US Patent 5,951,646), hereinafter referred to as Brandon, further in view of Okada et al (US Patent 5,754,241), hereinafter referred to as Okada, further in view of Imada et al (US Patent 7,254,318) hereinafter referred to as Imada.

Regarding **claim 5**, the combination discloses everything claimed as applied above (see claim 1). The combination, however, fails to disclose wherein the moving image object output means comprises packing means for dividing the moving image data retrieved from the buffer into packs, each pack having a fixed length, and multiplexing means for multiplexing the packed moving image data and outputting the multiplexed moving image data as the moving image object. However, the examiner maintains that it was well known in the art to provide wherein the moving image object output means comprises packing means for dividing the moving image data retrieved from the buffer into packs, each pack having a fixed length, and multiplexing means for

multiplexing the packed moving image data and outputting the multiplexed moving image data as the moving image object, as taught by Imada.

In a similar field of endeavor, Imada discloses a recording apparatus, recording program, and recording method. Further, Imada discloses an MPEG encoder (2) that encodes video signal to generate a content (synonymous with VOB), which reads on the claimed, " wherein the moving image object output means comprises packing means for dividing the moving image data retrieved from the buffer into packs, each pack having a fixed length and multiplexing means for multiplexing the packed moving image data and outputting the multiplexed moving image data as the moving image object," as disclosed at column 5, lines 34-36, and exhibited in figure 1.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Ogino, Brandon, and Okada to include the MPEG encoder that encodes video signals to generate a content (synonymous with VOB), as taught by Imada, for the purpose of creating an MPEG compatible data stream.

Regarding **claim 6**, Ogino discloses an image recording apparatus and electronic still camera. Ogino further discloses recording process circuit (20), which reads on the claimed "a record control apparatus," as disclosed at column 3, line 6; comprising:

a buffer memory (22) for storing the output of the recording process circuit (20), which reads on the claimed, "a buffer for storing moving image data belonging to a chapter," as disclosed at column 3, lines 9-10;

system control circuit (30) that checks through memory control circuit (24) whether the remaining capacity of the buffer memory (22) is at least equal to a predetermined threshold value V1, which reads on the claimed, "storage size detecting means for detecting that the moving image data stored in the buffer increases in size beyond a first size and then reaches a second size," as disclosed at column 4, lines 45-48. Ogino, however, fails to disclose final data detecting means for detecting that the final moving image data belonging to the chapter is stored in the buffer. However, the examiner maintains that it was well known in the art to provide final data detecting means for detecting that the final moving image data belonging to the chapter is stored in the buffer, as taught by Brandon.

In a similar field of endeavor, Brandon discloses a system and method for scheduling and processing image and sound data. Further, Brandon discloses an end of file ("EOF") indication used by a player logic element (310) to investigate input buffers to determine if there is a predetermined amount of information in the buffer, which reads on the claimed, "final data detecting means for detecting that the final moving image data belonging to the chapter is stored in the buffer," as disclosed at column 5, lines31-45. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Ogino to include the EOF indication, as taught by Brandon, for the purpose of identifying separate recorded video files.

The combination of Ogino and Brandon, however, fails to disclose moving image object output means for retrieving a portion of the moving image data, stored in the buffer, corresponding to the first size from the head of the moving image data, and

outputting the portion of the moving image data as a moving image object if it is detected that the moving image data stored in the buffer reaches the second size, and retrieving the whole moving image data stored in the buffer and outputting the retrieved moving image data as a moving image object if it is detected that the final moving image data belonging to the chapter is stored in the buffer. However, the examiner maintains that it was well known in the art to provide moving image object output means for retrieving a portion of the moving image data, stored in the buffer, corresponding to the first size from the head of the moving image data, and outputting the portion of the moving image data as a moving image object if it is detected that the moving image data stored in the buffer reaches the second size, and retrieving the whole moving image data stored in the buffer and outputting the retrieved moving image data as a moving image object if it is detected that the final moving image data belonging to the chapter is stored in the buffer, as taught by Okada.

In a similar field of endeavor, Okada discloses a video decoder capable of controlling encoded video data. Further, Okada discloses when an occupying amount Bm of the bit buffer (2) exceeds the threshold value Bthn, the determining circuit (5) determines that the bit buffer (20) may overflow, and in accordance with this decision, the control core circuit (7) controls the bit buffer (2) in such a manner that a video stream for the proper number of pictures is read out to set the occupying amount of Bm of the bit buffer (2) smaller than the threshold value Bthn, which reads on the claimed, “moving image object output means for retrieving a portion of the moving image data, stored in the buffer, corresponding to the first size from the head of the moving image

data, and outputting the portion of the moving image data as a moving image object if it is detected that the moving image data stored in the buffer reaches the second size, and retrieving the whole moving image data stored in the buffer and outputting the retrieved moving image data as a moving image object if it is detected that the final moving image data belonging to the chapter is stored in the buffer," as disclosed at column 9, lines 9-16.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Ogino and Brandon to specifically include when an occupying amount Bm of the bit buffer (2) exceeds the threshold value Bthn, the determining circuit (5) determines that the bit buffer (20) may overflow, and in accordance with this decision, the control core circuit (7) controls the bit buffer (2) in such a manner that a video stream for the proper number of pictures is read out to set the occupying amount of Bm of the bit buffer (2) smaller than the threshold value Bthn, as taught by Okada, for the purpose of avoiding buffer overflow and underflow errors. The combination, however, fails to disclose moving image encoding means for encoding a moving image signal and outputting the encoded moving image signal as moving image data, audio encoding means for encoding an audio signal and outputting the encoded audio signal as audio data. However, the examiner maintains that it was well known to provide moving image encoding means for encoding a moving image signal and outputting the encoded moving image signal as moving image data, audio encoding means for encoding an audio signal and outputting the encoded audio signal as audio data, as taught by Imada.

In a similar field of endeavor, Imada discloses a recording apparatus, recording program, and recording method. Further, Imada discloses an MPEG encoder (2) that encodes video signal to generate a content (synonymous with VOB), which reads on the claimed, “moving image encoding means for encoding a moving image signal and outputting the encoded moving image signal as moving image data,” as disclosed at column 5, lines 34-36; and an audio encoder (8), which reads on the claimed, "audio encoding means for encoding an audio signal and outputting the encoded audio signal as audio data," as disclosed at column 5, line 24, and exhibited in figure 1. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Ogino, Brandon and Okada to include an MPEG encoder and an audio encoder, as taught by Imada, for the purpose of creating an MPEG compatible data stream.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARC DAZENSKI whose telephone number is (571)270-5577. The examiner can normally be reached on Monday - Friday, 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Jeff Harold can be reached on (571)272-7519. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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